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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,374	09/24/2001	Haruyoshi Yamada	110675	7503

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EXAMINER

NGUYEN, MICHELLE P

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 05/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,374

Applicant(s)

YAMADA ET AL.

Examiner

Michelle Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 24 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 12-17 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

The cases in which the projector of claim 8 comprises a light source according to any one of claims 2 to 7 render claims 12-17, respectively, redundant.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 15, the newly added phrase "on both pair of the openings" seems to suggest additional structure which is neither described in the disclosure nor shown in the drawings, and therefore renders the claim vague and indefinite. Further, the term "both" should be --the-- because only one pair of openings is positively claimed.

Claims 2-17 include all limitations set forth in claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-329015 to Kimura (English translation provided).

With regard to claim 1, Kimura discloses a light source (lamp unit 10) used for a projector for modulating a light irradiated from a source lamp to form an optical image in accordance with image information and enlarging and projecting the optical image, comprising (see Figs. 2, 3):

a source lamp (light source lamp 2) (see Fig. 1);

a reflector (reflector 3) for aligning and emitting the light irradiated from the source lamp (see Fig. 1); and

a case (lamp case 11) for accommodating the source lamp and the reflector (see Fig. 2),

wherein a light-emitting surface of the reflector is covered by a light-transmissive plate (windshield 12) and a single opening (opening between the light-transmissive plate and the upper end of the reflector) is formed on a contact surface of the light-transmissive plate and the reflector, the opening being disposed on a side of an optical axis of the reflector (see Figs. 2, 3), and

wherein the case includes a cooling channel (ventilator 14) for introducing a cooling air to the source lamp through the opening and a cooling channel shutter (door 16, spring 18, members 16a, 21a) for shutting the cooling channel when the case

is detached from the projector and for opening the cooling channel when the case is attached to the projector on the opening (see translation, paragraphs 20, 22, Figs. 2, 3).

Although Kimura shows only a single opening instead of a pair of openings to be formed on a contact surface of the light-transmissive plate and the reflector, Kimura teaches that two or more openings may replace a single opening (see paragraph 23, lines 4-5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the light source of Kimura with two openings symmetrically disposed around the optical axis of the reflector in place of the single opening for improving the circulation of cooling air throughout the light source.

With regard to claim 2, Kimura teaches the opening as discussed above with respect to claim 1 to comprise a recess formed on the distal part of the reflector in the light-emitting direction (see Figs. 2, 3).

With regard to claim 3, Kimura does not teach explicitly the opening as discussed above with respect to claim 1 to be horizontally disposed when the case is detached from the projector. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to detach from the projector of Kimura the case such that the opening has any orientation, including a horizontal orientation, for preventing damage to the light source and/or the projector.

With regard to claims 4 and 5, Kimura does not teach the cooling channel shutter as discussed above with respect to claim 1 to include a lid member rotatably supported to the case for shutting an opening formed on the case and a biasing member for biasing the lid member in rotary direction. Instead, Kimura teaches the cooling channel

shutter to include a lid member (door 16) slidably supported by the case for shutting an opening (ventilator 23) formed on the case and a biasing member (spring 18) for biasing the lid member in slide direction thereof (see translation, paragraph 18, lines 8-15, Figs. 2, 3). However, it is well known in the art to substitute for a sliding mechanism a pivoting mechanism for providing rotational motion instead of linear motion. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute for the sliding door and biasing means of Kimura a rotating door and corresponding biasing means to further accommodate or change the housing configuration.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura as applied to claim 1 above, and further in view of U.S. Patent No. 5,743,610 to Yajima et al.

With regard to claim 7, Kimura does not teach a dust filter to be provided on the opening as discussed above with respect to claim 1. However, Yajima et al. teach attaching an air filter to the backside of a ventilation hole for preventing the incursion of dust particles (see Col. 8, lines 5-8). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a dust filter on the opening of Kimura for preventing the incursion of dust particles.

Allowable Subject Matter

7. Claim 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action, and to include all of the limitations of the base claim and any intervening claims.

8. Claims 8-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action, and to include all of the limitations of the appropriate base claim and any intervening claims (see discussion below).

9. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 6, the prior art does not teach in combination with all other limitations recited in the claim a duct for guiding an air form an outside of a case to a cooling channel and/or from the cooling channel to the outside of the case as set forth in the claim.

Claim 8 depends from any one of claims 1 to 7. The cases in which claim 8 depends from any one of claims 1-5 and 7 render claim 8 subject to rejection. Only the case in which claim 8 depends from claim 6 renders claim 8 in condition for allowance for the reasons set forth above in connection with claim 6 (assuming claim 8 has been rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action).

Claims 9-17 include all limitations set forth in claim 8.

Please note that if claim 8 is to be rewritten to depend from claim 6 only, then claim 16, which depends from claim 8, would fail to further limit claim 8.

Conclusion

10. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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U.S. Patent No. 6,481,854 to Sugawara et al.


U.S. Patent No. 6,364,492 to Fujimori et al.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Nguyen whose telephone number is 703-305-2771. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

mpn
May 12, 2003


RUSSELL ADAMS
SUPERVISORY PATENT EXAMINER
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